

REMARKS/ARGUMENTS

Claims 1, 4, and 9 are pending in the present application. Claim 9 is presently amended by substituting "said PCR primer" for "the PCR primer" to clarify the claimed invention. No new matter is added and entry of the present amendment is respectfully requested. Reconsideration of the present application in view of the above amendment and remarks set forth below is respectfully requested.

The Examiner maintain her rejections of claims 1, 4 and 9 under 35 U.S.C. 102(b) as being anticipated by Sorensen, et al., J. Virology, Dec. 1993, p. 7118-7124. Applicants respectfully traverse.

Claim 1 is directed to a method for amplifying a target DNA fragment comprising providing a PCR primer that comprises a compound at the 5' terminus, wherein the compound may be a phosphate group. Claim 4 is dependent from claim 1, and further limits the PCR primer to either an asymmetric PCR or a degenerate PCR.

In contrast to the representations in the Amendment that we filed February 27, 2006, the Examiner believes that Sorensen does teach a PCR primer that comprises a phosphate compound at the 5' terminus, though the Examiner does not identify which portion of Sorensen explicitly disclose such teaching. With regard to Applicants' explanation that Sorensen does not teach a PCR primer that comprises a phosphate compound at 5' terminus, the Examiner states that such statements must be supported by an appropriate affidavit or declaration. Applicants do not find that the particular part of MPEP identified by the Examiner (MPEP 716.01(c)) requires an affidavit or declaration supporting statements concerning what the prior art discloses. Nor is the present situation included in the examples provided in the Office Action and MPEP 716.01 which include unexpected results and inoperability of the prior art, etc. However, to facilitate the Examiner's examination of the

present application, Applicants submit herewith a Declaration made by Dr. Hitoshi Aoki who is a person skilled in the art.

An excerpt from "Model 380B DNA synthesizer Version 1.1 User's Manual, Applied Biosystems" is attached as an Exhibit supporting the Declaration. Section 2 of the Excerpt explains in detail chemistry of DNA synthesis. Specifically, at pages 2-29 to 2-32, the Excerpt describes how to treat the synthesized DNA. Figure 2-8 at page 2-32 shows the structure of oligonucleotides which have a hydroxyl group at the 5' terminus. At last paragraph of page 2-31, the Excerpt reads: "The deprotected, detritylated DNA has a free 5' and 3' hydroxyl and is biologically active." As explained by Dr. Hitoshi Aoki in the Declaration, he did not find that Sorensen indicates or suggests the use of a phosphate group at the 5' terminus. Accordingly, claims 1 and 4 are not anticipated by Sorensen under 35 U.S.C. 102(b).

If, however, after reviewing the explanation provided in the present Amendment and the Declaration, the Examiner still insists that Sorensen discloses the presently claimed invention, Applicants respectfully invite that the Examiner identify which particular portion of Sorensen explicitly discloses the present invention, or what other evidence, if any, the Examiner is relying on for her conclusion.

Claim 9 is directed to a method for amplifying a target DNA fragment comprising providing a PCR primer that comprises biotin at the 5' terminus; amplifying said target DNA fragment via PCR using said PCR primer; wherein the PCR is either one of asymmetric PCR and degenerate PCR. Sorensen discloses a combination of a non-biotinylated degenerate primer and a biotinylated non-degenerate primer. In contrast, claim 9 recites that the biotinylated PCR primer is degenerate. Further, Sorensen does not disclose or suggest the use of an asymmetric PCR primer. Accordingly, claim 9 is not anticipated by Sorensen.

The Examiner apparently misinterprets the claim as not requiring that the PCR primer that comprises the biotin at the 5' terminus is the same as the PCR primer used to amplify the target DNA fragment via PCR. That is, according to the Examiner, "the claim does not require that both PCR primer are degenerate." (Emphasis added.) We disagree. It is customary that when a term is first recited in a claim, an indefinite article "a" or "an" is used before this term and an antecedent basis for the same term is established in this claim or its dependent claims. Thus, when the same term having an antecedent basis is recited again, a definite article "the" or the term "said" should be used to refer to the same term.

Therefore, here, "the PCR primer" recited in claim 9 refers to "a PCR primer" in the same claim, i.e., they are not two different PCR primers as interpreted by the Examiner. In other words, the PCR primer recited in claim 9 is a biotinylated PCR primer which is used for either degenerate or asymmetric PCR. However, to facilitate the Examiner's examination, we have now amended claim 9 by substituting "said PCR primer" for "the PCR primer" to call the Examiner's attention that the PCR primer that comprises the biotin at the 5' terminus recited in claim 9 is the same as the PCR primer used to amplify the target DNA fragment via PCR.

Likewise, Dr. Hitoshi AOKI has explained in detail in his Declaration that Sorensen teaches neither asymmetric PCR nor biotinylated degenerated primer.

Therefore, claim 9 is not anticipated by Sorensen under 35 U.S.C. 102(b).

It is respectfully requested that the Examiner withdraw the rejection of claims 1, 4 and 9 under 35 U.S.C. 102(b) as being anticipated by Sorensen.

Accordingly, it is respectfully submitted that the pending claims 1, 4 and 9 are now in a condition for allowance, early notice of which is earnestly requested.

It is believed that no other fees or charges are required at this time in connection with the present application. However, if any fees or charges are required at this time, they may be charged to our Patent and Trademark Office Deposit Account No. 03-2412.

Respectfully submitted,

COHEN, PONTANI, LIEBERMAN & PAVANE

By Kent H Cheng
Kent H. Cheng
Reg. No. 33,849
551 Fifth Avenue, Suite 1210
New York, New York 10176
(212) 687-2770

Dated: May 26, 2006